



Merritt Based Medicine

Merritt's Block 3, Module 3 (Renal Module) Study Guide

Week #1 Topics

1 – Gross Anatomy of the Kidneys and the Urinary Tract

- + PBL Case 1 – Chris Still + PBL Case 2 – Mark Webber
- + Renal Anatomy Rapid Review – Dr. Kristjan Thompson (Canvas Pre-Recorded Lecture)
- + Gross Anatomy – List of Structures (PDF on Canvas)
- + Optional Gross Anatomy (Tuesday, Nov. 17th @ 1-3 pm)
 - + BB Renal Anatomy Video
 - +Acland Anatomy Videos - Kidneys (~ 5 min.)
 - +Acland Anatomy Videos – Suprarenal Glands (~1 min.)
 - +Acland Anatomy Videos – Ureter (~3 min.)
 - +Acland Anatomy Videos – Bladder, Male (~3 min.)
 - +Acland Anatomy Videos – Bladder, Female (~3 min.)
 - +Acland Anatomy Videos - Review of Urinary System (~ 1 min.)
 - + YouTube Video: Noted Anatomist Autonomic Innervation of the Bladder (~ 10 min.)
 - + YouTube Video: Noted Anatomist Adrenal Gland (~ 20 min.)
- + YouTube Video: Noted Anatomist Retroperitoneal Space & Retroperitoneal Organs (~ 22 min.)
 - + YouTube Video: Noted Anatomist Hepatic Portal System (~ 13 min.)
 - + YouTube Video: Ninja Nerd – Renal – Kidney Anatomy Model (~ 21 min.)
- +AMBOSS [Kidneys Learning Card](#) +AMBOSS [Overview of the Urinary Tract Learning Card](#)

2 – Introductory Renal Physiology

- + PBL Case 1 – Chris Still + PBL Case 2 – Mark Webber
- + Nephron Schematic Summarizing Key Transport Processes in the Nephron (on Canvas)
- + Prakash – Overview of Functions of the Kidneys s LG (Wed., Nov. 4th @ 9-10:20AM)
- + BB Renal Physiology I Video + BB Renal Physiology II Video + BB Nephron Physiology Video
 - + YouTube Video: Armando's Kidney Physiology Overview (~ 11 min.)
 - + YouTube Video: Armando's Nephrology – Physiology (~ 14 min.)
 - + YouTube Video: Armando's Nephrology – Glomerular Filtration (~ 14 min.)
 - + YouTube Video: Ninja Nerd – Renal – Glomerular Filtration (~ 43 min.)
 - + YouTube Video: Ninja Nerd – Renal – Proximal Convoluted Tubule (~ 34 min.)
 - + YouTube Video: Ninja Nerd – Renal – Loop of Henle (~ 28 min.)
 - + YouTube Video: Ninja Nerd – Renal – Distal Convoluted Tubule (~ 25 min.)
 - + YouTube Video: Ninja Nerd – Renal – The Collecting Duct (~ 26 min.)
- +AMBOSS [Physiology of the Kidney Learning Card](#) +AMBOSS [Autonomic Nervous System Learning Card](#)
+AMBOSS [Acid-Base Disorders Learning Card](#)

Color Code Key:

Optional Large Groups **Required Material on Canvas** **Pathoma**
Optional Recourses on Canvas **Boards & Beyond** **Sketchy Pharm/Micro**
Acland Anatomy **AMBOSS Card's/Questions** **YouTube Videos**

Week #1 Topics

3 – Body Fluid Compartments, Osmolality and Tonicity of Body Fluids

- + PBL Case 1 – Chris Still + PBL Case 2 – Mark Webber
- + YouTube Video: Ninja Nerd – Renal – Filtration, Reabsorption, and Secretion Overview (~ 36 min.)
- + YouTube Video: Ninja Nerd – Renal – Autoregulation Part 1 (~ 35 min.) + Part 2 (~ 22 min.)

4 – Brief Review of Transmembrane and Transepithelial Transport

- + PBL Case 2 – Mark Webber +AMBOSS [Electron Transport Chain & Oxidative Phosphorylation Learning Card](#)

5 – Histology & Cell Biology of the Kidneys and the Urinary Tract

- + PBL Case 2 – Mark Webber + Nichols Renal Biopsy PPT (on Canvas) + Bridges – Renal Histology Q & A + Histology & Cell Biology LG (Thursday, Nov. 5th @ 8-9:50AM)
- + YouTube Video: Shotgun Histology Bladder (~ 4 min.) + YouTube Video: Shotgun Histology Female Urethra (~ 3 min.)
- + YouTube Video: Shotgun Histology Kidney (~ 3 min.) + YouTube Video: Shotgun Histology Male Urethra (~ 4 min.)
- + YouTube Video: Shotgun Histology Ureter (~ 2 min.) + YouTube Video: Shotgun Histology Adrenal (~ 7 min.)

6 – Renal Tubular Function Part 1: Handling of Sodium

- + PBL Case 2 – Mark Webber +AMBOSS [Renal Tubular Disorders Learning Card](#)

7 – Urinalysis

- + PBL Case 2 – Mark Webber + Nichols Urinalysis PPT (on Canvas) + Nichols Urine Microscopy PPT (on Canvas)
- +AMBOSS [Diagnostic Evaluation of the Kidney and Urinary Tract Learning Card](#)

8 – Defining Features of Nephrotic Syndrome

- + PBL Case 2 – Mark Webber + BB Nephrotic Syndrome Video
- + YouTube Video: Armando's Nephrotic Syndrome Overview (~ 12 min.)
- + YouTube Video: Armando's Nephrotic Syndrome Types + Histology (~ 12 min.)
- +AMBOSS [Nephrotic Syndrome Learning Card](#)

9 – Glomerulopathies: Minimal Change Disease

- + PBL Case 2 – Mark Webber + Nichols' Glomerulopathies Power Point + Nichols' Monograph – Lupus Nephritis
- + Nichols' Monograph – IgA Nephropathy +AMBOSS [Glomerular Diseases Learning Card](#)

10 - Pathogenesis of Edema in Nephrotic Syndrome

- + PBL Case 2 – Mark Webber + Pathoma Video – Nephrotic Syndrome
- +AMBOSS [Nephrotic Syndrome Learning Card](#)

Week #2 Topics

11 – Nephrotic vs. Nephritic Syndrome

+ BB Nephritic Syndrome Video

+ YouTube Video: Armando's Nephritic Syndrome Overview (~ 16 min.) + Pathoma Video – Nephritic Syndrome

+AMBOSS [Nephritic Syndrome](#) Card +AMBOSS [Glomerular Diseases](#) Card +AMBOSS [Congestive Heart Failure](#) Card

12 – Glomerulopathies Continued

+ Nichols' Glomerulopathies Power Point

+ Klatt's Embryology Practice Questions + BB Glomerulonephritis Principles Video + BB MPGN Video

+ Sketchy Pharm Videos –GI & Endocrine – Thyroid, Parathyroid, etc. – **Glucocorticoids** (Focus on Prednisone, dexamethasone, and methylprednisolone) + Sketchy Pharm Videos – Antineoplastics (Focus on Rituximab)

+ No Sketchy Pharm Videos –: Calcineurin inhibitors: **Cyclosporine, Tacrolimus**

- Antiproliferative agents: **Cyclophosphamide**; chlorambucil; **azathioprine**; **mycophenolate mofetil**

+ **Hydroxychloroquine** in lupus nephritis

+AMBOSS [Immunosuppressants](#) Learning Card +AMBOSS [Glomerular Diseases](#) Learning Card

+AMBOSS [Poststreptococcal Glomerulonephritis](#) Card +AMBOSS [Rapidly Progressive Glomerulonephritis](#) Card

13 – Renal Tubular Function Part 2: Other Solutes

+AMBOSS [Renal Tubular Disorders](#) Learning Card +AMBOSS [Physiology of the Kidney](#) Learning Card

+AMBOSS [Inborn Errors of Metabolism](#) Learning Card (Hartnup Disease, Cystinuria)

+AMBOSS [Kidneys](#) Learning Card +AMBOSS [Overview of the Urinary Tract](#) Learning Card

14 - Renal Tubular Function Part 3: Role of Kidneys in Acid-Base Balance

+ PBL Case 5 – Brandon Davis + BB Acid Excretion Video + BB Acid-Base Principles Video

+AMBOSS [Renal Tubular Disorders](#) Learning Card

15 - Renal Tubular Function Part 4: Renal Handling of Ca, Pi and Mg

+AMBOSS [Renal Tubular Disorders](#) Learning Card +AMBOSS [Thyroid Gland & Parathyroid Gland](#) Card

16 – Regulation of ECF Osmolality

+ YouTube Video: Armando's Nephrology – Mechanisms of Renin Release (~ 14 min.)

+AMBOSS [Diabetes Insipidus](#) Card +AMBOSS [SIADH](#) Card +AMBOSS [Sodium Disorders](#) Card

17 – Regulation of ECF Volume

+ YouTube Video: Armando's Nephrology – Mechanisms of Renin Release (~ 14 min.)

+AMBOSS [Renal Artery Stenosis](#) Card +AMBOSS [Vascular Physiology](#) Card +AMBOSS [Adrenal Gland](#) Card

Week #3 Topics

18 – Acute Kidney Injury

+ BB Renal Failure Video + BB Rhabdomyolysis Video
+ Dirty Medicine: Acute Kidney Injury (~ 9 min.) + Armando's Acute Renal Failure (~ 10 min.) + Armando's Acute Kidney Injury (~ 16 min.) + Pathoma Video – Acute Renal Failure +AMBOSS [Acute Kidney Injury Learning Card](#)

19 – Disorders of Water Balance, Hyponatremia, and Hypernatremia

+ BB Electrolyte Disorders Video + BB Sodium and Water Balance Video + BB Sodium Disorders Video
+AMBOSS [Sodium Disorders Learning Card](#)

20 – Disorders of Acid-Base Balance

+ BB Respiratory Acid-Base Disorders Video + BB Metabolic Alkalosis Video + BB Renal Tubular Acidosis Video
+ BB Metabolic Acidosis Video + BB Acid-Base Problems Video
+ YouTube Video: Dirty Medicine: Acid/Base (~ 9 min.) + YouTube Video: Dirty Medicine: Renal Tubular Acidosis (~ 7)

21 – Disorders of Potassium Balance

+ Sketchy Pharm Videos – **Loop Diuretics** (Focus on Furosemide, Bumetanide, Ethacrynic acid, Torsemide)
Calcium gluconate: should be administered first!
+ Sketchy Pharm Videos – **Insulin** → *Insulin, preferably short-acting insulin, in combination with glucose*
Sodium bicarbonate: in acidemic patients
+ Sketchy Pharm Videos – **Sympathomimetic** (Stimulates the Na⁺/K⁺-ATPase pump) → *Beta-2-adrenergic agonists*
+ Sketchy Pharm Videos – **Loop Diuretics** (Focus on Furosemide, Bumetanide, Ethacrynic acid, Torsemide) →
Forced diuresis (loop diuretics with normal saline solution)
+AMBOSS [Hyperkalemia Learning Card](#) +AMBOSS [Hypokalemia Learning Card](#)

22 – Embryologic Development of the Kidneys

+ Dr. Klatt's Embryology of the Urinary Tract Power Point (PPT and Pre-Recorded Lecture on Canvas)
+ BB Renal Embryology Video + Klatt – Renal Embryology Practice Questions (Doc on Canvas)
+ Pathoma Video – Congenital
+AMBOSS [Congenital Anomalies of the Kidneys Learning Card](#)

23 – Cystic Diseases of the Kidneys

+ Genetics – T & T Case Study on ADPKD
+ Nichols' Monograph – Cystic Renal Diseases – S. Notes on UT Path. (PDF on Canvas)
+ BB Cystic Kidney Disease Video
+ YouTube Video: Armando's ADPKD Video (~ 16 min.)
+AMBOSS [Polycystic Kidney Disease Learning Card](#) +AMBOSS [Portal Hypertension Learning Card](#)

Week #4 Topics

24 – Chronic Kidney Disease

- + PBL Case 8 – Albert Huggins Part 1 + PBL Case 8 – Albert Huggins Part 2
- + Prakash – CKD: Brief Notes on Pathogenesis and Pathophysiology (PPT and Pre-Recorded Lecture on Canvas)
- + YouTube Video: Armando's Chronic Kidney Disease (~ 16 min.)
- + Sketchy Pharm Videos – Cardiovascular & Renal – Heart Failure Drugs – 1.2 ACE inhibitors, ARBs, etc. (Focus on **ACE inhibitors/ARBs for preventing progression of CKD**)
- +AMBOSS [Chronic Kidney Disease](#) Learning Card

25 – Diuretics

- + PBL Case 8 – Albert Huggins Part 2
- + Abdelsaid - Diuretics (PDF on Canvas)
- + BB Diuretics Video
- + Sketchy Pharm Videos – **Loop Diuretics** (Focus on Furosemide, Bumetanide, Ethacrynic acid, Torsemide)
- + Sketchy Pharm Videos – **Thiazides** (Focus on Hydrochlorothiazide, Bendroflumethiazide and Methyclothiazide + **Thiazide-Like Diuretics** “NCC Inhibitors” Chlorthalidone, Indapamide and Metolazone)
- + Sketchy Pharm Videos – **K⁺ Sparing Diuretics** (Focus on **ENaC blocker**: Amiloride, Triamterene, + **aldosterone receptor antagonist**: Spironolactone, Eplerenone)
- + Sketchy Pharm Videos – **Acetazolamide Mannitol** (Focus on Carbonic anhydrase inhibitors: **Acetazolamide** + Osmotic diuretics: **Mannitol**)
- + Sketchy Pharm Videos – Cardiovascular & Renal – Heart Failure Drugs – 1.1 Digoxin, Milrinone, Nesiritide (Focus on **Recombinant brain natriuretic peptide**: Nesiritide)
- + Sketchy Pharm Videos – GI & Endocrine – Diabetes – 2.2 Metformin, thiazolidinediones, SGLT-2 Inhibitors, etc. (Focus on **SGLT-2 inhibitors**: Dapagliflozin, canagliflozin, empagliflozin)
- + Sketchy Pharm Videos – GI & Endocrine – Thyroid, Parathyroid, etc. – 4.2 ADH, DDAVPH, etc. (Focus on **V2 Receptor Antagonist**: Tolvaptan)
- +AMBOSS [Diuretics](#) Learning Card

26 – Pharmacologic Management of CKD-Mineral Bone Disorder (CKD-MBD)

- + PBL Case 8 – Albert Huggins Part 2
- + Sketchy Pharm Videos – GI & Endocrine – Thyroid, Parathyroid, etc. – **3.3 Teriparatide, Vitamin D, Cinacalcet, Sevelamer**
- +AMBOSS [Chronic Kidney Disease](#) Learning Card

Week #4 Topics

27 – Vascular Diseases of the Kidneys

+ PBL Case 8 – Albert Huggins Part 2

+ Nichols' Monograph – Misc. Vascular Diseases of the Kidneys - S. Notes on UT Path. (PDF on Canvas)

+AMBOSS [Malignant Hypertension](#) Card +AMBOSS [Hemolytic Uremic Syndrome](#) Card

+AMBOSS [Thrombotic Thrombocytopenic Purpura](#) Card +AMBOSS [Renal Tubular Disorders](#) Card

+AMBOSS [Renal Artery Stenosis](#) Card +AMBOSS [Sickle Cell Anemia](#) Card (Sickle cell nephropathy)

28 – Renal Transplantation Immunology & immunosuppressive agents in this context

+ PBL Case 8 – Albert Huggins Part 2

+ Nichols' Monograph – Polyomavirus BK Virus Nephropathy - S. Notes on UT Path. (PDF on Canvas)

+ Nichols' Monograph – Renal Transplantation - S. Notes on UT Path. (PDF on Canvas)

+AMBOSS [Transplantation](#) Learning Card

+AMBOSS [Renal Replacement Therapy](#) Learning Card

29 – Psychiatric Aspects of Dialysis and Transplantation

+ PBL Case 8 – Albert Huggins Part 2

+ Behavioral Science – Dr. Elliott D's Monograph (PDF on Canvas)

+ Behavioral Science – GLGC – ESRD and its Rx (PDF on Canvas)

+ Nichols' Monograph – Renal Transplantation – S. Notes on UT Path. (PDF on Canvas)

Week #5 Topics

30 – Selected Ethical Issues in Cardio-Pulmonary and Renal Medicine

- + YouTube Video: Armando's Nephrology – Cardiorenal Syndrome (~ 11 min.)
- + Ethics Issues: Dr. Childs LG (Tuesday, Dec. 1st @ 8-9:45AM)

+AMBOSS [Principles of Medical Law and Ethics Learning Card](#) +AMBOSS [Cardiorenal Syndrome Card](#)

31 – Embryologic Development of the ureters, bladder and urethra

- + Ethics – Beflinger et al. Decision-Making Concerning Specific Rx (PDF on Canvas)
- + Ethics – Dickert & Emmanuel Pages 30-31 (PDF on Canvas)
- + Ethics – Schiedermayer – Two Poems by a Physician (PDF on Canvas)
- + Klatt – Renal Embryology Practice Questions (Doc on Canvas)

+AMBOSS [Bladder Exstrophy, Abnormalities of Male Urethra, & Webbed Penis Learning Card](#)

+AMBOSS [Development of the Reproductive System Learning Card](#) (Urogenital Differentiation)

+AMBOSS [Somatic Symptom and Related Disorders Learning Card](#) (Munchausen Syndrome)

32 – UTI, Acute and Chronic Pyelonephritides, and other Tubulointerstitial Diseases

+ PBL Case 9 – Mrs. Hill

- + Nichols' Monograph – Misc. Tubulointerstitial Diseases of the Kidneys - S. Notes on UT Path. (PDF on Canvas)
- + Urinary Tract Infections Monograph - Iqbal (PDF on Canvas)
- + BB Tubulointerstitial Disease Video + BB Urinary Tract Infections Video
- + Pathoma Video – Urinary Tract Infection

- + Sketchy Path Videos – Parasites – Helminths – 6.2 Trematodes (Focus on **Praziquantel, metrifonate**)
- + Sketchy Path Videos – Bacteriology – Gram Positive Cocci – 1.1 Staph aureus
- + Sketchy Path Videos – Bacteriology – Gram Positive Cocci – 1.4 Strep agalactiae
- + Sketchy Path Videos – Bacteriology – Gram Negative Bacilli – 5.1 Klebsiella, Enterobacter, Serratia
- + Sketchy Path Videos – Bacteriology – Gram Negative Bacilli – 5.4 E. coli (uro-pathogenic E. Coli)
- + Sketchy Path Videos – Bacteriology – Gram Negative Bacilli – 5.10 Proteus mirabilis
- + Sketchy Path Videos – Bacteriology – Spirochetes – 9.1 Leptospira interrogans

“MUSM Relevant” Microbes w/ No Sketchy:

- *Citrobacter, Morganella* and (Murray p. 263)
- *Staphylococcus saprophyticus* (Murray pp. 176, Box 18-1, and 180)

+AMBOSS [Tubulointerstitial Diseases Card](#) +AMBOSS [Urinary Tract Infections Card](#) +AMBOSS [Urethritis Card](#)
+AMBOSS [Schistosomiasis Card](#) +AMBOSS [Pyelonephritis Card](#) +AMBOSS [Bacteria Overview Card](#)

Week #5 Topics

33 – Pharmacologic Management of UTI

+ PBL Case 9 – Mrs. Hill

+ Thomas Monograph – Renal Pharmacology Resource Power Point – UTI Treatment – (PPT on Canvas)

+ Sketchy Pharm Videos – Antimicrobials – Cell Wall & Membrane Active – 1.1 Penicillin (Focus on **Penicillin G**)

+ Sketchy Pharm Videos – Antimicrobials – Cell Wall & Membrane Active – 1.3 Ampicillin, amoxicillin. (Focus on **Amoxicillin, ampicillin, piperacillin, ticarcillin**)

+ Sketchy Pharm Videos – Antimicrobials – Cell Wall & Membrane Active – 1.4 Cephalosporins (Focus on **ceftriaxone (3G), ceftazidime (3G), cefpodoxime (3G), and cefepime (4G)**)

+ Sketchy Pharm Videos – Antimicrobials – Cell Wall & Membrane Active – 1.5 Monobactams & Carbapenems (Focus on **aztreonam, imipenem-cilastin**)

+ Sketchy Pharm Videos – Antimicrobials – Other Antibiotics: Fluoroquinolones (Focus on **Ciprofloxacin, levofloxacin, ofloxacin, norfloxacin**)

+ Sketchy Pharm Videos – Antimicrobials – Inhibitors of Bacterial Protein Synthesis – 2.1 Tetracycline: (Focus on **Doxycycline, tigecycline**)

+ Sketchy Pharm Videos – Antimicrobials – Inhibitors of Bacterial Protein Synthesis – 2.2 Macrolides (Focus on **Erythromycin**)

+ Sketchy Pharm Videos – Antimicrobials – Inhibitors of Bacterial Protein Synthesis – 2.6 Aminoglycosides (Focus on **Gentamicin, amikacin**)

+ Sketchy Pharm Videos – Antimicrobials – Other Antibiotics – 4.1 Trimethoprim-Sulfamethoxazole

+ Sketchy Path Videos – Parasites – Helminths – 6.2 Trematodes: Anti-schistosome agents (Focus on **Praziquantel, metrifonate**)

“MUSM Relevant” Antibiotic Therapy w/ No Sketchy:

+ Beta-lactamase inhibitors (Focus on **lavulanic acid, sulbactam, tazobactam**)

+AMBOSS [Urinary Tract Infections Learning Card](#) + AMBOSS [Overview of Antibiotic Therapy Learning](#)

34 – Physiology and Neural Control of Micturition; Disorders of Micturition

+ PBL Case 9 – Mrs. Hill

+ YouTube Video: Armando’s Physiology of Micturition (~ 16 min.)

+ YouTube Video: Ninja Nerd– Renal – Micturition Reflex (~ 42 min.)

+AMBOSS [Urinary Incontinence Card](#) +AMBOSS [Urothelial Cancer Card](#) +AMBOSS [Urinary Retention Card](#)
+AMBOSS [Elimination Disorders Card](#) +AMBOSS [Overview of the Urinary Tract Card](#)

Week #5 Topics

35 – Effects of Autonomic Drugs on the Urogenital Tract

- + PBL Case 9 – Mrs. Hill + Thomas Monograph – Renal Pharmacology Resource Power Point – (PPT on Canvas)
 - + Sketchy Pharm Videos – Cholinergic Receptor Activating Agents (Focus on **Bethanechol**)
 - + Sketchy Pharm Videos – Acetylcholinesterase inhibitor (Focus on **Neostigmine**)
- + Sketchy Pharm Videos – Antimuscarinic drugs (Focus on **Atropine, oxybutynin, trospium, darifenacin, solifenacin, imipramine**)
- + Sketchy Pharm Videos – Alpha-adrenergic receptor agonists (Focus on **phenylephrine, midodrine, and pseudoephedrine**)
- + Sketchy Pharm Videos – Alpha-adrenergic receptor blocking agents: (Focus on **Prazosin, terazosin, doxazosin, tamsulosin**)
 - + Sketchy Pharm Videos – Beta-3 adrenergic receptor agonist (Focus on **Mirabegron**)

36 – Tumors of the Kidney and Urinary Tract

- + PBL Case 10 – George Kelley + PBL Case 11 – George Bailey
- + Nichols' Monograph – Renal Cell Carcinoma - S. Notes on UT Path. (PDF on Canvas)
- + Nichols' Monograph – Urothelial Carcinoma of the Renal Pelvis – S. Notes on UT Path. (PDF on Canvas)
 - + Nichols' Monograph – Bladder Cancer - S. Notes on UT Path. (PDF on Canvas)
- + Thomas Monograph – Renal Pharmacology Resource Power Point – Chemo Agents –(PPT on Canvas)
 - + BB Renal & Bladder Tumors Video
- + Pathoma Video – Renal Neoplasia + Pathoma Video – Lower Urinary Tract Carcinoma
- Renal Cell Carcinoma Tx:**
- + Sketchy Pharm Videos – Antineoplastics – Kinase Inhibitors & Monoclonal Antibodies – 3.1 Imatinib, erlotinib, etc. (Focus on **Sunitinib, Papozanib, Axitinib, Sorafenib, Cabozantinib**)
- + Sketchy Pharm Videos – Antineoplastics – Kinase Inhibitors & Monoclonal Antibodies – 3.2 Rituximab, cetuximab, etc. (Focus on **Bevacizumab**)
- + Sketchy Pharm Videos – Antimicrobials – Antiviral Hepatitis–7.1 Interferon a, B, γ (Focus on **IFN-alpha**)
Can also use/no sketchy: •mTOR inhibitor: Temsirolimus •PD-1 inhibitor: Nivolumab, Pembrolizumab
- Bladder Carcinoma Tx:**
- + Sketchy Pharm Videos – Antineoplastics – DNA & Cellular Division – 2.2 Cisplatin: (Focus on **Cisplatin**)
- + Sketchy Pharm Videos – Antineoplastics – DNA & Cellular Division – 2.3 Doxorubicin: (Focus on **Doxorubicin & mitomycin-C**)
 - + Sketchy Pharm Videos – Antineoplastics – DNA & Cellular Division – 2.5 Vincristine, etc.: (Focus on **vinblastine**)
- + Sketchy Pharm Videos – Antineoplastics – Antimetabolites – 1.1 Methotrexate, leucovorin, etc.: (Focus on **Methotrexate**)
 - + Sketchy Pharm Videos – Antineoplastics – Antimetabolites – 1.3 Cladribine, etc.: (Focus on **gemcitabine**)
- Can also use/No Sketchy: Bacillus-Calmette Guerin (yup same thing as the TB Live Attenuated Vaccine)*
 - +AMBOSS [Urothelial Cancer](#) Learning Card +AMBOSS [Wilms Tumor](#) Learning Card
 - +AMBOSS [Renal Cell Carcinoma](#) Learning Card +AMBOSS [Beckwith-Wiedemann Syndrome](#) Card

37 – Obstructive Uropathy

- + PBL Case 12 – Bernie Wilson + Nichols' Monograph – Hydronephrosis - S. Notes on UT Path. (PDF on Canvas)
 - +AMBOSS [Urinary Tract Obstruction](#) Learning Card +AMBOSS [Megaureter](#) Learning Card

Week #6 Topics

38 – Urolithiasis

- + PBL Case 13 – Mr. Stanley Horn
- + Cline SD. Monograph: Crystalluria & Urolithiasis (PDF on Canvas)
- + Nichols' Monograph – Urolithiasis - S. Notes on UT Path. (PDF on Canvas)
- + BB Kidney Stones Video
- + YouTube Video: Armando's Urinary/Kidney Stones Overview (~ 15 min.)
- +AMBOSS [Nephrolithiasis \(Urolithiasis\) Learning Card](#)

39 – Management of Urate Nephrolithiasis; Review of Management of Hyperuricemia

- + PBL Case 13 – Mr. Stanley Horn
- + Sketchy Pharm Videos – Blood & Inflammation – Anti-Inflammatory, etc. – 3.2 Gout Drugs (Focus on **Allopurinol, Febuxostat, Probenecid, Lesinurad, Pegloticase, Rasburicase**)
- +AMBOSS [Nephrolithiasis Learning Card](#) +AMBOSS [Gout & Hyperuricemia Learning Card](#)

40 – Salicylate Intoxication

- + PBL Case 14 – Sally C. Late
- + Inhalation & IV Anesthetics & Adjuncts LG (Tuesday, Oct. 20th @ 9-10AM)
- +AMBOSS [Salicylate Toxicity Learning Card](#)

41 – Role of Kidneys in Drug Metabolism and Elimination

- + PBL Case 15 – Mr. John Adams

42 – Diabetic Nephropathy

- + PBL Case 15 – Mr. John Adams
- +AMBOSS [Diabetes Mellitus Learning Card](#)

December 9th-18th: Review for the EOM Quiz & the NBME Formative Quiz.

December 9th: EOB3 Q & A Review (Prakash) @ 1:00 – 2:30 PM Via Zoom

December 10th: PHRM Exam @ 8 – 10am

December 14th: Optional Earlier Date for NBME Formative Quiz in Renal System

December 17: **EOB3SE** (150 Q's Total = 100 Renal; 25 Cardio; 25 Pulm) & NBME Formative Quiz in Renal System

Review Opportunities

Renal Module Review (Prakash) via Zoom

Pulmonary Physiology Sample Problems with Solutions (PDF on Canvas)

Review Mid Mod Exam & Formatives

Gross Anatomy Review Lab List of Structures

List of Drugs in Renal Module Study Guide @ a Glance + compare w/ Drug Chart

First Aid

AMBOSS Questions/Outlines

Osmosis Questions

Web-Path Questions

Kaplan Questions

Firecracker Cards